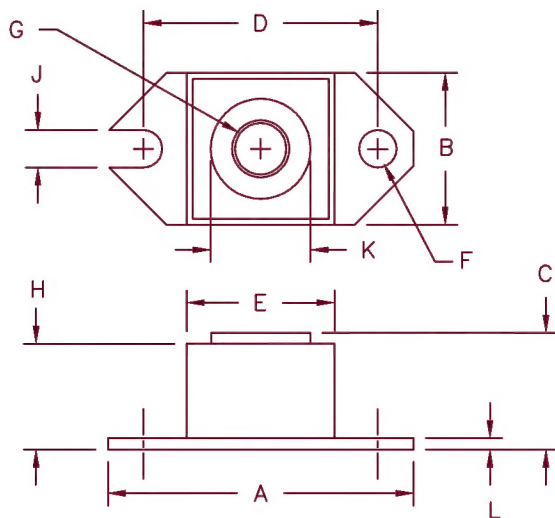


240 Amp Schottky Rectifier HS24035 — HS24045



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	1.52	1.56	38.86	39.62	
B	.725	.775	18.42	19.69	
C	.605	.625	15.37	15.88	
D	1.182	1.192	30.02	30.28	
E	.745	.755	18.92	19.18	Sq.
F	.152	.160	3.86	4.06	Dia.
G		1/4-20	UNC-2B		
H	.570	.580	14.49	14.73	
J	.156	.160	3.96	4.06	
K	.495	.505	12.57	12.83	Dia.
L	.120	.130	3.05	3.30	

Microsemi Catalog Number	Industry Part Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
HS24035*	240NQ035, 244NQ035 MBRP20035L, MBRP30035L MBR24035	35V	35V
HS24040*	240NQ040, 244NQ040 MBR24040	40V	40V
HS24045*	240NQ045, 244NQ045 MBR24045	45V	45V

*Add suffix R for Reverse Polarity

- Schottky Barrier Rectifier
- Guard ring protection
- Low forward voltage
- V_{RRM} – 35 to 45 volts
- 150°C junction temperature
- Reverse energy tested

Electrical Characteristics

Average forward current	$I_F(AV)$ 240 Amps	$T_C = 92^\circ C$, square wave, $R_{\theta JC} = 0.24^\circ C/W$
Maximum surge current	I_{FSM} 3500 Amp	8.3 ms, half sine $T_J = 150^\circ C$
Max repetitive peak reverse current	$I_R(OV)$ 2 Amps	$f = 1\text{ KHz}$, $25^\circ C$, 1 μsec square wave
Max peak forward voltage	V_{FM} 0.49 Volts	$I_{FM} = 240A: T_J = 125^\circ C^*$
Max peak forward voltage	V_{FM} 0.55 Volts	$I_{FM} = 240A: T_J = 25^\circ C^*$
Max peak reverse current	I_{RM} 3.0 A	$V_{RRM}, T_J = 125^\circ C^*$
Max peak reverse current	I_{RM} 12 mA	$V_{RRM}, T_J = 25^\circ C$
Typical junction capacitance	C_J 10500 pF	$V_R = 5.0V, T_J = 25^\circ C$

*Pulse test: Pulse width 300 μsec , Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temp range	T_{STG}	$-55^\circ C$ to $175^\circ C$
Operating junction temp range	T_J	$-55^\circ C$ to $150^\circ C$
Maximum thermal resistance	$R_{\theta JC}$	$0.24^\circ C/W$ Junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	$0.12^\circ C/W$ Case to sink
Terminal torque		35–40 inch pounds
Mounting torque		20–25 inch pounds
Weight		1.1 ounces (28 grams)

HS24035 — HS24045

Figure 1
Typical Forward Characteristics

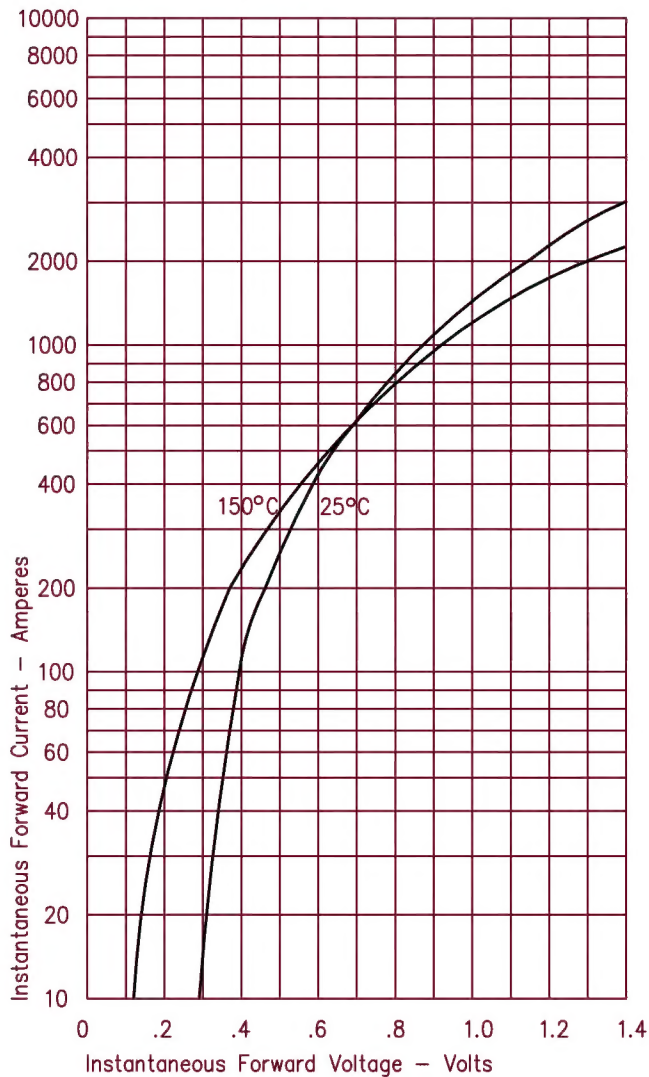


Figure 3
Typical Junction Capacitance

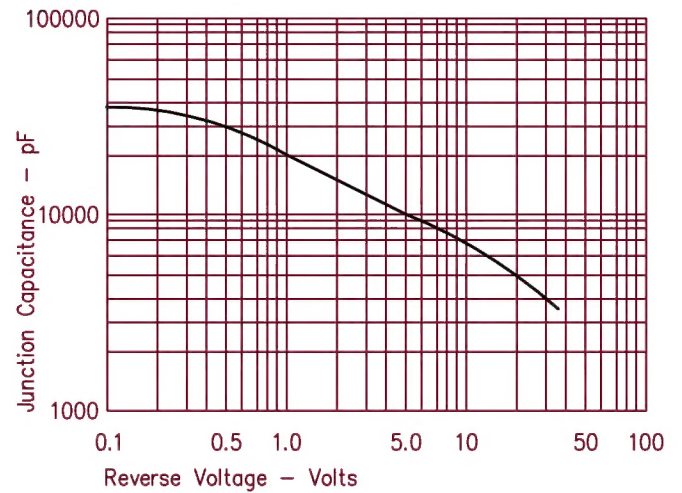


Figure 4
Forward Current Derating

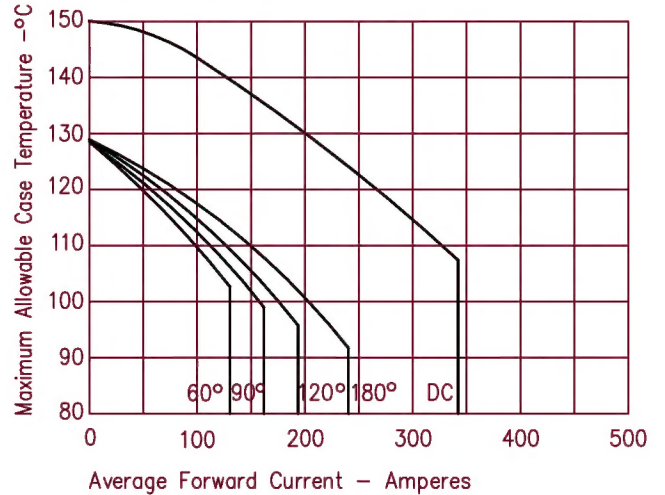


Figure 2
Typical Reverse Characteristics

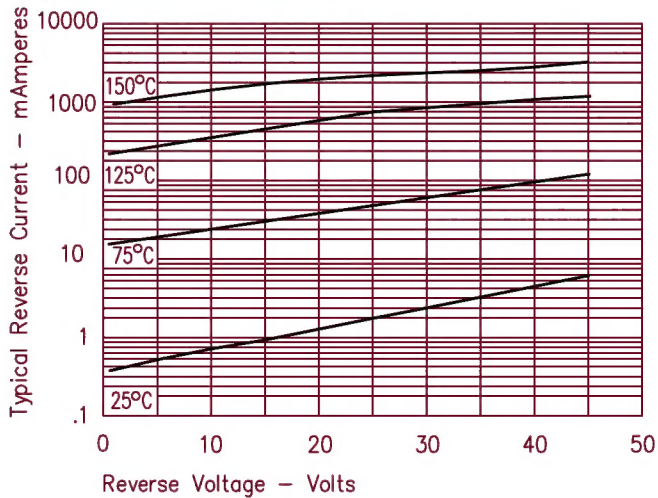


Figure 5
Maximum Forward Power Dissipation

